

[4 May, 2007]

RAJYA SABHA

(c) Action has been taken for improving tiger conservation, based on the Tiger Task Force recommendations constituted by the National Board for Wildlife under the Chairmanship of the Hon'ble Prime Minister, which *inter-alia*, include enactment of the Wildlife (Protection) Amendment Act, 2006.

Effect of global warming on India

†3256. SHRIMATI MAYA SINGH: Will the Minister of ENVIRONMENT AND FORESTS be pleased to state:

(a) whether Government are aware of the warning of a scientist, Shri Nicolas Stern that India would be worst affected by global warming;

(b) if so, whether Government have formulated any plan to deal with this problem; and

(c) whether any estimate has been made by the scientists and meteorologists regarding the places which would be affected and the degree of effect on them alongwith the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT AND FORESTS (SHRI NAMO NARAIN MEENA): (a) Sir Nicholas Stern, Head of the Government Economic Service and Adviser to the British Government has submitted a Report namely, 'The Stern Review on the Economics of Climate Change' in October, 2006. This Report has assessed wide range of evidence on the impacts of climate change and on the economic costs and has used a number of different techniques to assess costs and risks and aims at providing global and regional impacts of climate change. The Report projects adverse impact for many regions including Indian region and the estimates, therein, are based on integrated assessment models and scenarios for future climate change and inherently involve several approximations. The effects of climate change on the Indian monsoon however remain unclear, as yet. As of today, for extreme events, there is insufficient information to assess recent trends, and climate models lack spatial details required to make confident projections. Further, as per information available with the Indian Meteorological Department, the surface air temperatures over the Indian subcontinent show a slight warming trend by about 0.4° C during the past 100 years. This warming trend is however not uniform either in time or space. Some seasons do not exhibit as much

†Original notice of the question was received in Hindi.

warming trends as the others, and some regions of the country show lesser warming trend or even cooling trends. While significant warming trend occur over most parts of the peninsular region of the country; many parts of the North West India show cooling trends. In the Indian context, most of the studies during the last four decades have clearly pointed out that the monsoon rainfall is trend-less and is mainly random in nature over a long period of time, particularly on an all-India scale.

(b) In India, the existing legislative and policy framework in various sectors of concern, together with wide ranging reforms contribute to addressing the climate change issues. These, *inter-alia*, include energy efficiency measures, energy conservation, power sector reforms and active renewable energy programme, fuel switching to cleaner energy, afforestation and conservation of forests, etc. India also has the largest number of projects under the Clean Development Mechanism (CDM) of the Kyoto Protocol, which reduce net emissions of greenhouse gases. Moreover, India has had, over the last 55 years of economical development, undertaken major programs addressing climate variability concerns. These include cyclone warning and protection, coastal protection, floods and drought control and relief, major and minor irrigation projects, control of malaria, food security measures and research on drought resistant crops.

(c) A detailed assessment of the present trends in Indian climate parameters and future scenarios of climate change is provided in India's Initial Communication to the UN Framework Convention on Climate Change. The studies carried out for different future greenhouse gas emission scenarios indicate that the projected temperature changes are more pronounced over the Northern latitudes compared to the peninsular India. The rainfall is expected to increase by about 10-15% across India with variability across regions. While there is a higher confidence for temperature projections, there are still large uncertainties in the projected monsoon rainfall over this part of the globe as most of the climate models still lack sufficient detail in their simulation of monsoon rainfall.

Creation of forest and biomass

3257. SHRI RAVULA CHANDRA SEKAR REDDY: Will the Minister of ENVIRONMENT AND FORESTS be pleased to state:

(a) whether his Ministry is creating forest and biomass resources in all cultivable vacant lands to strengthen the life support system of communities;